
A review on Traditional medicinal uses of *Hibiscus rosa-sinensis*

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Abstract

Medicinal and Aromatic Plants (MAPS) are the ingredients of herbal drugs, herbal preparations, and herbal medicinal products, besides traditional/ complementary medicines, house hold remedies and nutraceuticals. Over 100 million women world wide are currently using hormonal contraceptives. *Hibiscus rosa-sinensis* with these drugs, fertility can be suppressed at will, for as long as desired, with almost 100% confidence and complete return of fertility on discontinuation. The efficacy, convenience, low cost and overall safety of oral contraceptives (OCS) has allowed women to decide if and when they will become pregnant and to plan their activities. This article highlights some of the traditional medicinal uses, chemical composition, therapeutic evaluation of *Hibiscus rosa-sinensis*.

Keywords: Antioxidants; Degenerative diseases; *Hibiscus sabdariffa*; Phytochemicals; Therapeutic uses.

Introduction

Hibiscus. (Malvaceae) is a genus of herbs, shrubs, and trees; its 250 species are widely distributed in tropical and subtropical regions of the world. About 40 species occur in India. Many *Hibiscus*. species are valued as ornamental plants and are cultivated in gardens. Some species, such as *Hibiscus cannabinus*. L. and *Hibiscus sabdariffa*. L., are important sources of commercial fiber, whereas some species are useful as food, and yet others are medicinal (Anonymous, 1959). Many species belonging to this genus have been used since ancient times as folk remedies for various disorders. In Ayurveda, *Hibiscus esculentus*. L. fruits are considered tonic, astringent, and aphrodisiac. In Unani medicine, the fruits are considered emollient and useful for treating urinary disorders (Parrotta, 2001). The leaves and roots of *Hibiscus manihot*. L. are used as a poultice for boils, sprains, and sores, and the flowers are used to treat chronic bronchitis and toothache. The mucilage of the bark is considered to be an emmenagogue (Chopra et al., 1950). The seeds of *Hibiscus abelmoschus*. L. are valued for their diuretic, demulcent, and stomachic properties and are considered stimulant, antiseptic, cooling, tonic, carminative, and aphrodisiac. The bark, flowers, and fruits of *Hibiscus bauiferus*. J.G. Froster are used externally for the treatment of skin diseases such as eczema, scabies, psoriasis, and ringworm. In Ayurvedic medicine, the bark is the official source of the drug “parisha,” a reputed remedy for skin diseases (Parrotta, 2001).

Hibiscus rosa sinensis is known as China rose belonging to the Malvaceae family. This plant has various important medicinal uses for treating wounds, inflammation, fever and coughs, diabetes, infections caused by bacteria and fungi, hair loss, and gastric ulcers in several tropical countries. Phytochemical analysis documented that the main bioactive compounds responsible for its medicinal effects are namely

flavonoids, tannins, terpenoids, saponins, and alkaloids. Experiment from recent studies showed that various types of extracts from all *H. rosa sinensis* parts exhibited a wide range of beneficial effects such as hypotensive, anti-pyritic, anti-inflammatory, anti-cancer, antioxidant, anti-bacterial, anti-diabetic, wound healing, and abortifacient activities. The few studies on toxicity exhibited that most extracts from all parts of this plant did not show any signs of toxicity at higher doses according to histological analysis. However, some of the extracts did alter biochemical and hematological parameters. Therefore, further research must be conducted to isolate the phytochemicals and explore their specific mechanism of action. This review summarizes the phytochemistry, pharmacology, and medicinal uses of this flower with the purpose of finding gaps demanding for future research and investigating its therapeutic potential through clinical trials. (2)

The phytochemical analysis showed that *Hibiscus rosa-sinensis* contained tannins, anthraquinones, quinines, phenols, flavanoides, alkaloids, terpenoids, saponins, cardiac glycosides, protein, free amino acids, carbohydrates, reducing sugars, mucilage, essential oils and steroids. The previous pharmacological studies revealed that *Hibiscus rosa-sinensis* possessed reproductive, antidiabetic, fibrinolytic, hypolipidemic, antioxidant, antiinflammatory, antipyretic, analgesic, immuno-modulatory, anticonvulsant, antidepressant, memory enhancement, cytotoxic, antimicrobial, antiparasitic, dermatological, anti-haemolytic, urinary, hepatoprotective, neuroprotective, antitussive and many other effects. The current review will discuss the chemical constituents, pharmacological effects and therapeutic importance of *Hibiscus rosa-sinensis*. (3)

Health Benefits of hibiscus rosa-sinensis

The leaves, stems, and flowers of the *hibiscus rosa-sinensis* plant are often used to treat a variety of ailments. In particular, various research results have demonstrated that tea made by dried hibiscus flowers offers numerous health benefits. Here you can see how this plant produces exotic flowers, promotes physical health and its various medicinal benefits. (4)

1. Possesses Antifertility Properties

Today, more than 100 million women worldwide utilized *Hormonal Contraceptives*, which is the artificial birth control method. Although it has been proven that this artificial method of preventing pregnancy can cause various side effects for most people, this method is the most sought after. However, studies have shown that *hibiscus rosa-sinensis* has anti-fertility properties, making it effective as a natural contraceptive with no side effects when prescribed properly. The juice extracted from the flowers and stems of the hibiscus plant is used in various traditional medicine around the world as a natural **abortion** and **contraceptive**.

2. Promotes Cardiovascular Health

High blood pressure is one of the most important causes of heart disease and if the blood pressure is kept under control it will not cause any damage to the heart. But when the blood pressure rises, and

when the antioxidant pressure in the blood rises, they can greatly affect the heart and cause heart attacks and chest pains. Hibiscus rosa-sinensis is very effective in lowering blood pressure and regulating blood flow. For people with heart problems and high blood pressure, the daily use of hibiscus extract or its dried flowers can make a difference. Hibiscus can help to reduce stress.

3. Has the Potential to Fight Cancer

Antioxidants are chemicals that prevent the damage caused by free radicals and control their effects, which are usually available to the body through the natural food we consume on a daily basis. The hibiscus plant is high in **antioxidants** that help balance the free radicals and protect the immune system. It also prevents damage to other cells in the body by free radicals. Often, high levels of antioxidants are involved in the beneficial process and effectively inhibit the growth of cancer cells and tumor growths.

4. Ameliorates Liver Health

Hibiscus rosa-sinensis plants are high in antioxidants that play an important role in the healthy functioning of the liver. Hibiscus is used traditionally as an excellent medicine to reduce liver inflammation, protect the liver, and enhance liver health.

5. Relieves All Hair Problems

The leaves of the hibiscus plant treat various types of hair and scalp problems such as dandruff, itching, hair loss, dull hair, dry hair, and scalp patches. The paste of the leaves moisturizes, brightens, nourishes, strengthens the hair, and controls hair loss. Also, the extract of the leaves gives a darker color to the hair. The tonic made from the petals of these flowers acts as a natural dye and prevents graying of the hair. Various traditional medicines of the world including Ayurveda highly recommend Hibiscus plant leaves to treat hair and scalp problems. However, both the flower and the leaves of this plant promote strong hair growth.

6. Supports Skin Enrichment

The extract from the flower of the hibiscus plant has been used extensively since ancient times to treat skin problems. Hibiscus extract is still used today as an important ingredient in various skincare products. Hibiscus extract, which is a powerful antioxidant, is a rich source of **vitamin C**. Hibiscus flowers are a great supplement in the process of preventing acne caused by bacteria and excessive secretion of sebum. High in anti-inflammatory properties, these flowers reduce the appearance of wrinkles and blackheads on the skin. Besides, these enhance the elasticity of the skin thus helping to keep it soft and firm. Hibiscus flowers also carry out the process of removing lines, marks, wrinkles, etc., thus retaining the youthful appearance. It acts as a natural moisturizer and treats various skin conditions such as eczema, psoriasis, red patches, white patches, rashes, and scabies.

7. Aids in Weight Loss

Research shows that hydro citric acid is found in the flowers of the hibiscus and this acid is commonly found in medicines prescribed for weight loss processes. So overweight and obese people can significantly reduce their body weight by consuming tea made by dried hibiscus flowers daily. In a

study of overweight mice, the flowers of this plant were shown to significantly reduce weight, and they also pave the way for reducing the absorption of starch and sugar.

Clinical Overview

Uses-

The leaves and calyces have been used as food and the flowers steeped for tea. Hibiscus has been used in folk medicine as a diuretic and mild laxative, as well as in treating cancer and cardiac and nerve diseases. Although information is limited, the potential for hibiscus use in treating hypertension and cancer, as well as for its lipid-lowering and renal effects, are being investigated.

Dosing

In trials investigating the hypotensive effect of hibiscus, daily dosages of dry calyx 10 g (approximately anthocyanin 9.6 mg) as an infusion in water, and total anthocyanin 250 mg per dose have been used for 4 weeks. Alternatively, doses of *H. sabdariffa* 3.75 g/day to 2 spoonfuls or 100 mg of aqueous *H. sabdariffa* for a duration of 15 days to 6 weeks was identified in a 2014 meta-analysis of trials investigating blood pressure effects.

Herbal use of Hibiscus (5)

1. Hibiscus Tonic

Hibiscus Flower Petals – 25 to 30

Water – 500ml

Procedure : Approximately 25 to 30 hibiscus flowers should be well dried and mixed with 500 ml of water and heated on a very low flame and ensure that the water does not boil. After a while, the water will turn purple, after the water should be cooled well and stored in a container. This tonic can be used as a conditioner every time when shampooing your hair, or you can apply this tonic on your hair and let it soak for 45 minutes. Then wash the hair so that the color of the hair turns dark black.

2. Hibiscus Oil

Hibiscus Leaves – 2 to 3

Hibiscus Flowers – 4 to 5

Regular Hair Oil – Required Amount

Procedure: Put 2 to 3 leaves of hibiscus and 4 to 5 flowers in a blender and crush well. Heat the crushed hibiscus mixture along with the oil you apply to the scalp daily. Once the juice of the leaves and flowers is completely mixed with the oil, turn off the flame. Before applying this hibiscus oil on the hair, it should be slightly warmed. Then rub it well on the hair & scalp and soak for about 30-45 minutes and then wash off.

3. Hibiscus Tea

Ingredients :

Dried Hibiscus Flowers – 2 Cups

Sugar – 500 grams

Water – 2 liters

Lemon – 2

Vanilla Extract – ½ teaspoon

Procedure: In a metal pot, add 2 liters of water and well-washed dried hibiscus flowers and put in the stove and heat over medium flame. Once the water has reached the boiling point turn off the flame and let the contents cool slightly. Sediments and dried flowers can then be easily removed by transferring this mixture to another vessel or cup. Add the required amount of sugar, lemon juice, and vanilla extract to this distilled water and mix well. The tea thus prepared can be served both hot and cold.

CONCLUSION:

The current review discussed the chemical constituents, pharmacological effects and therapeutic importance of *Hibiscus rosa-sinensis* as a promising medicinal plant with wide range of pharmacological activities which could be utilized in several medical applications because of its effectiveness and safety.

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